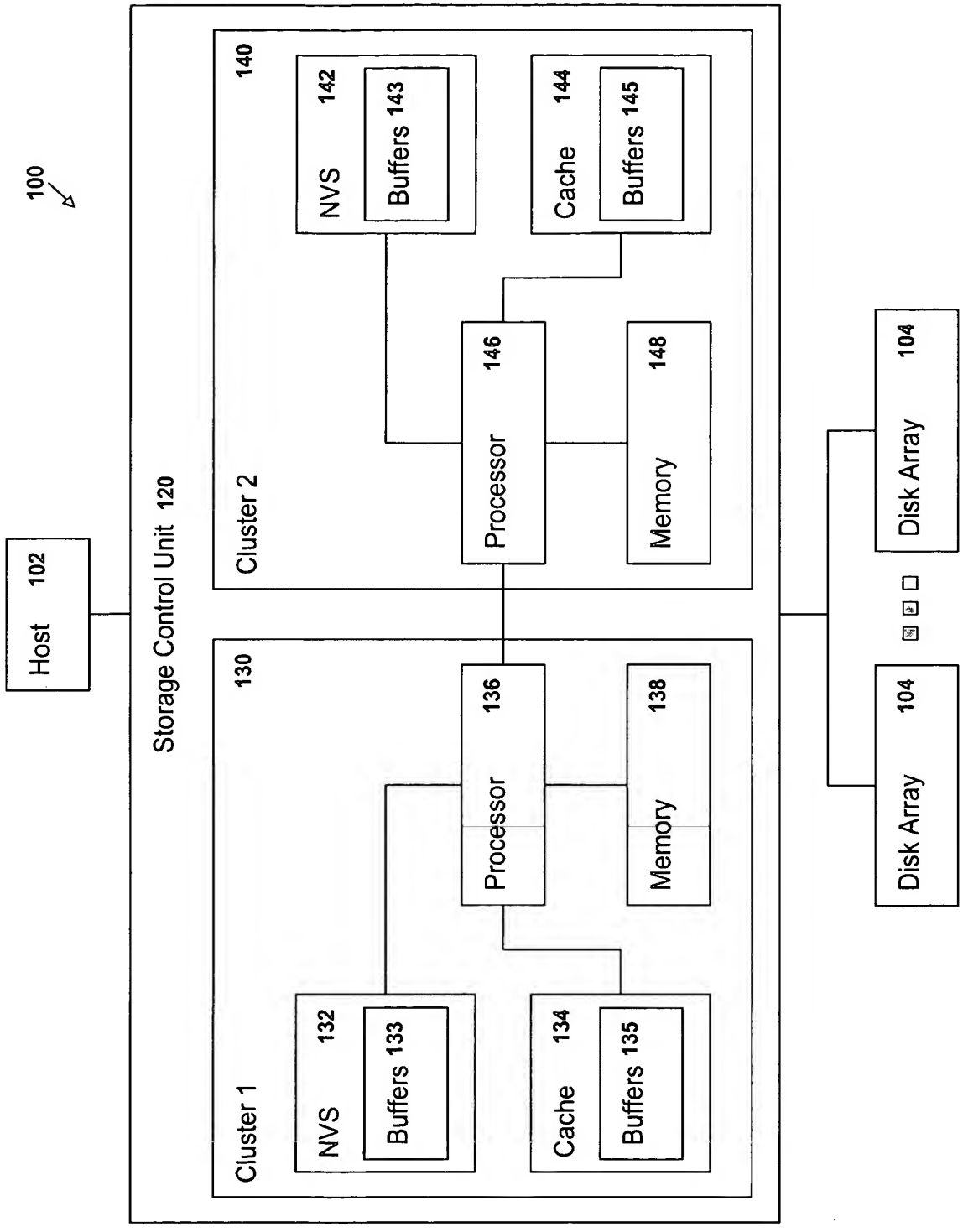
100
Host 102
Storage Control Unit 120
Cluster 1 130
NVS 132
Buffers 133
Cache 134
Buffers 135
Processor 136
Memory 138
Cluster 2 140
NVS 142
Buffers 143
Cache 144
Buffers 145
Processor 146
Memory 148
Disk Array 104
Disk Array 104

FIG. 1

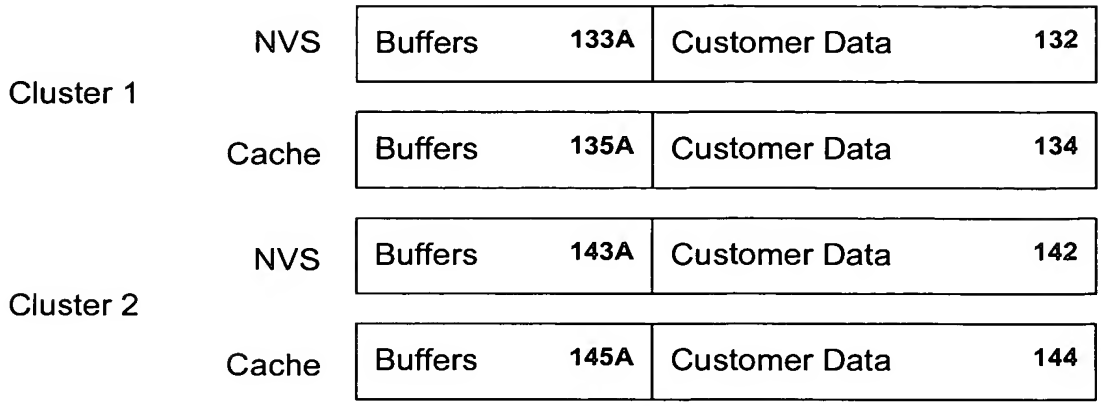

FIG. 2

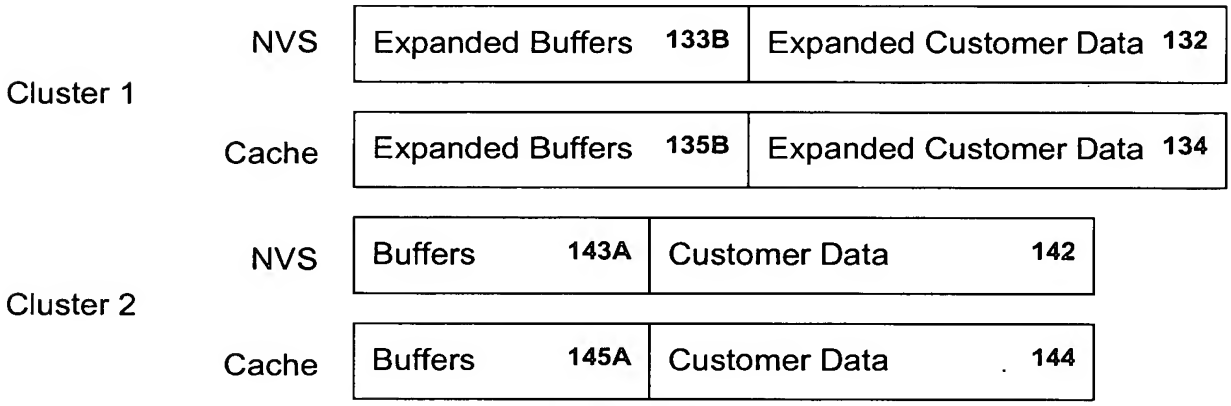

FIG. 3A

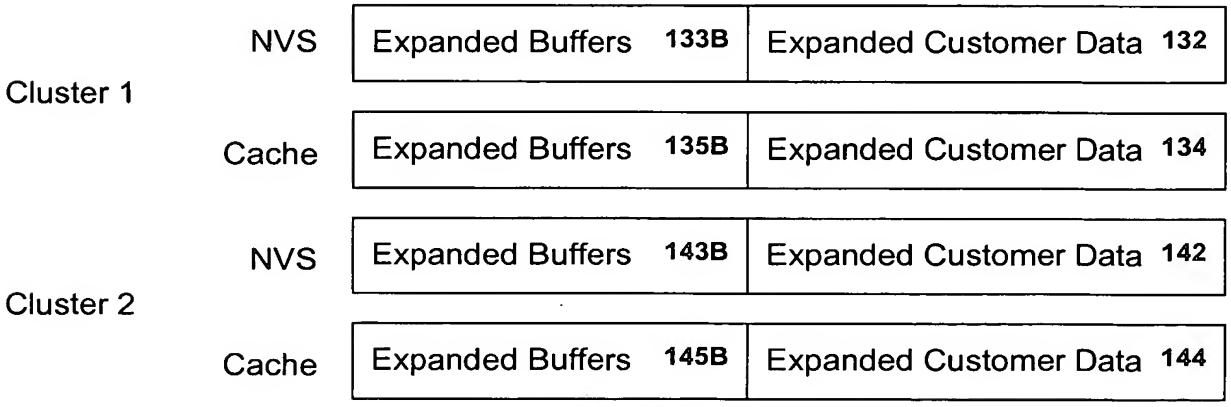

FIG. 3B

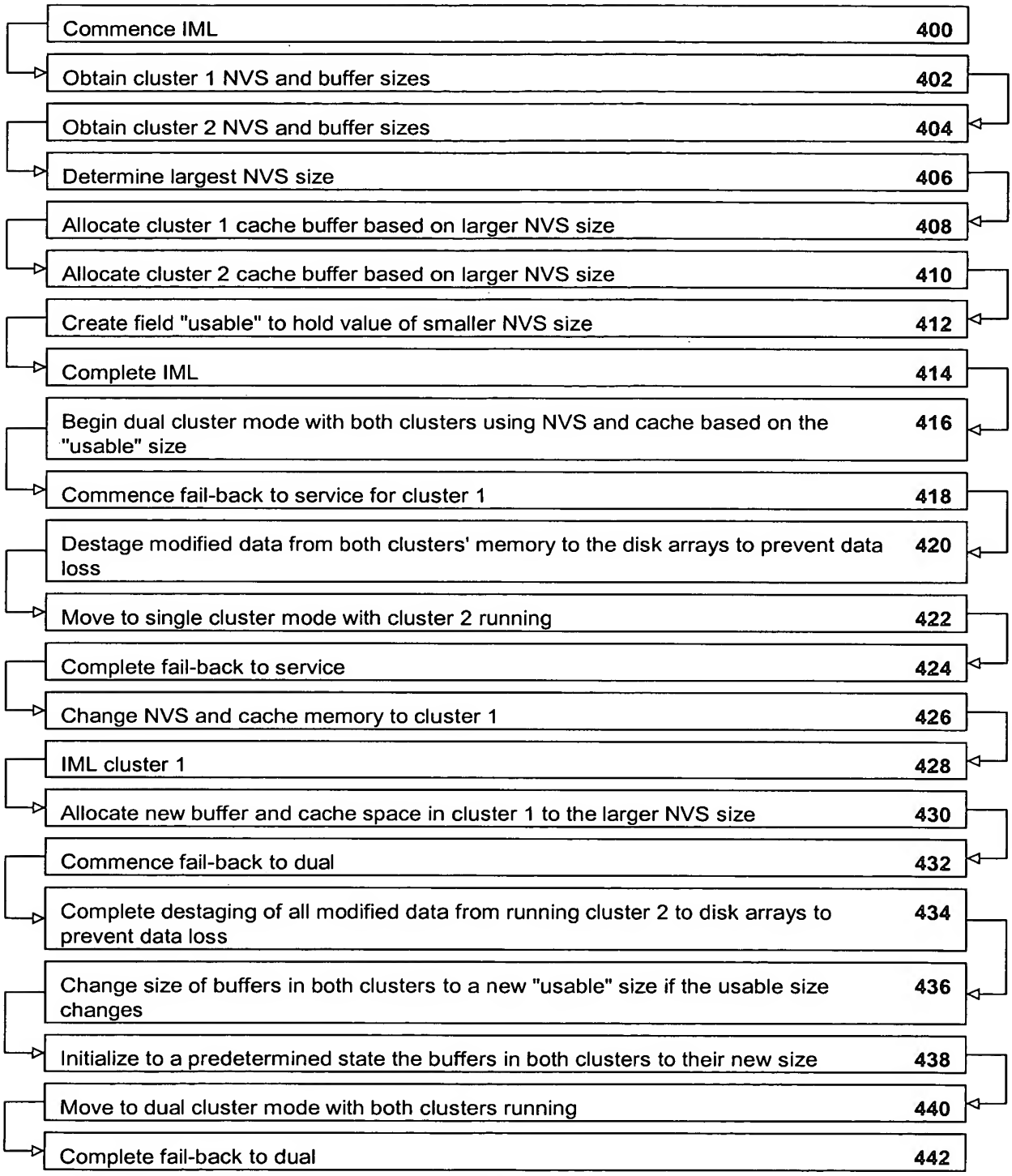
Commence IML 400
Obtain cluster 1 NVS and buffer sizes 402
Obtain cluster 2 NVS and buffer sizes 404
Determine largest NVS size 406
Allocate cluster 1 cache buffer based on larger NVS size 408
Allocate cluster 2 cache buffer based on larger NVS size 410
Create field "usable" to hold value of smaller NVS size 412
Complete IML 414
Begin dual cluster mode with both clusters using NVS and cache based on the "usable" size 416
Commence fail-back to service for cluster 1 418
Destage modified data from both clusters' memory to the disk arrays to prevent data loss 420
Move to single cluster mode with cluster 2 running 422
Complete fail-back to service 424
Change NVS and cache memory to cluster 1 426
IML cluster 1 428
Allocate new buffer and cache space in cluster 1 to the larger NVS size 430
Commence fail-back to dual 432
Complete destaging of all modified data from running cluster 2 to disk arrays to prevent data loss 434
Change size of buffers in both clusters to a new "usable" size if the usable size changes 436
Initialize to a predetermined state the buffers in both clusters to their new size 438
Move to dual cluster mode with both clusters running 440
Complete fail-back to dual 442

FIG. 4

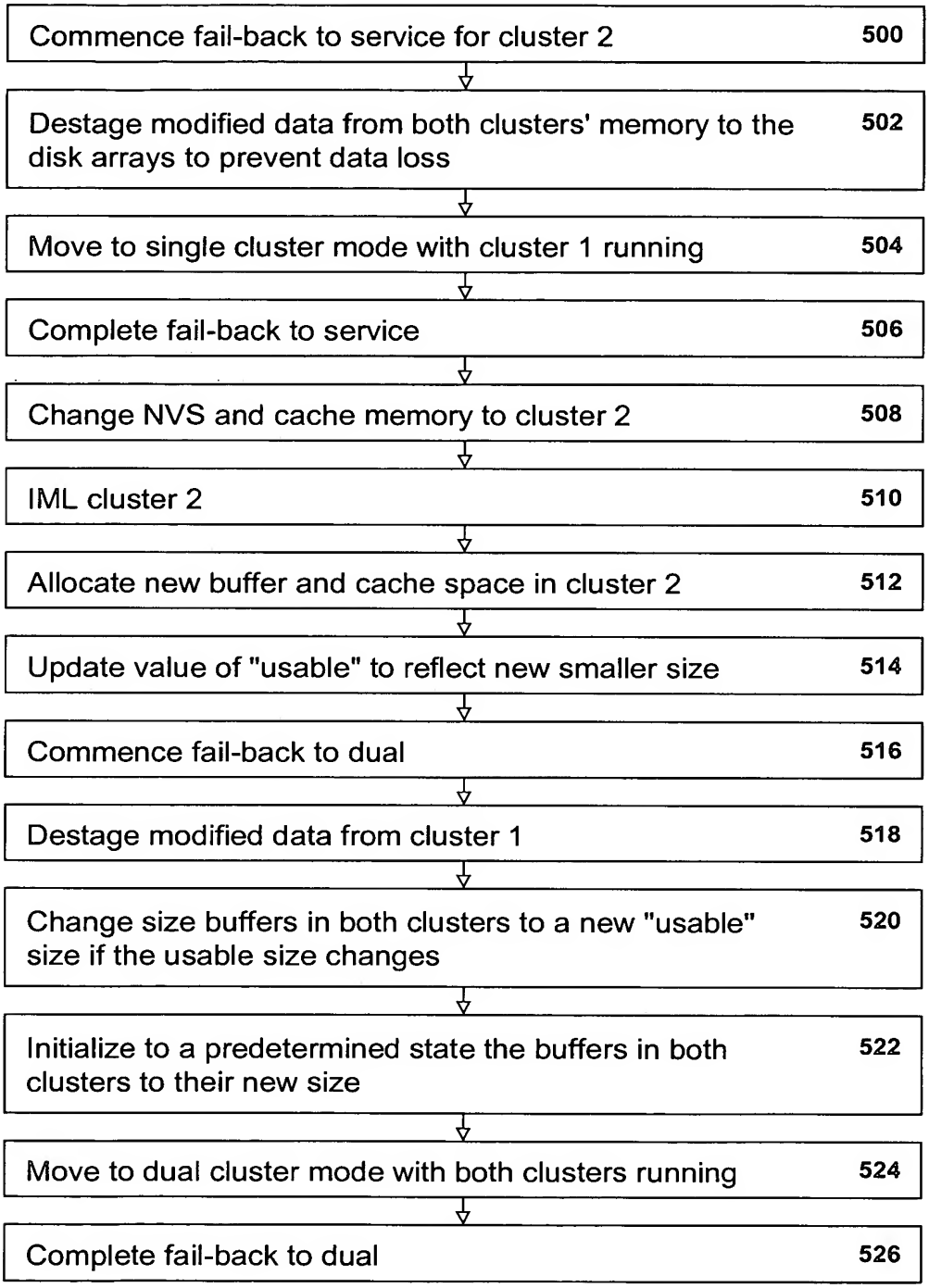
Commence fail-back to service for cluster 2
500
Destage modified data from both clusters' memory to the disk arrays to prevent data loss
502
Move to single cluster mode with cluster 1 running
504
Complete fail-back to service
506
Change NVS and cache memory to cluster 2
508
IML cluster 2
510
Allocate new buffer and cache space in cluster 2
512
Update value of "usable" to reflect new smaller size
514
Commence fail-back to dual
516
Destage modified data from cluster 1
518
Change size buffers in both clusters to a new "usable" size if the usable size changes
520
Initialize to a predetermined state the buffers in both clusters to their new size
522
Move to dual cluster mode with both clusters running
524
Complete fail-back to dual
526

FIG. 5